

**Table S1. X-ray Statistics for AsCpf1-crRNA-DNA Ternary Complex**

<b>Crystal</b>	<b>AsCpf1-crRNA-DNA</b>
Beam line	APS-ID24C
Wavelength	0.9792
Space group	P4 <sub>1</sub> 2 <sub>1</sub> 2
Unit cell	
a, b, c (Å)	197.74, 197.74, 125.21
$\alpha$ , $\beta$ , $\gamma$ (°)	90.0, 90.0, 90.0
Resolution (Å)	50-3.29 (3.43-3.29) <sup>a</sup>
R <sub>merge</sub>	0.101 (1.684)
I/ $\sigma$ (I)	14.1 (1.1)
Completeness (%)	99.5 (96.6)
CC(1/2)	0.996 (0.538)
Redundancy	5.3 (5.5)
Number of unique reflections	37141
R <sub>work</sub> /R <sub>free</sub> (%)	21.6/25.5
Number of non-H atoms	11206
Average B factors (Å <sup>2</sup> )	
Protein	168
DNA	130
RNA	144
R.m.s. deviations	
Bond lengths (Å)	0.009
Bond angles (°)	1.228
Ramachandran plot	
% favoured	96.21
% allowed	3.79
% outliers	0

<sup>a</sup> Highest resolution shell (in Å) shown in parentheses.